

Remarks

Formal entry of this Amendment as a supplement to the previously filed responsive Amendment of May 19, 2003 prior to the Examiner taking up the above-identified application for a further review is respectfully requested.

Consideration and favorable action therefor of the previously submitted responsive Amendment as supplemented with the filing of the present Amendment is respectfully requested.

The status of the claims now pending are given hereinabove. Namely, in addition to the Amendments made to the claims with regard to the responsive Amendment of May 19, 2003, a number of further amendments are being made herein in consideration of effecting further clarification as well as other changes that are, basically, of a minor editorial nature. In that regard, an editorial clarification was made with regard to the ending "wherein" clause of independent claim 4. Also, grammatical revisions were implemented in claims 2, 16 and 17. Independent claims 16 and 17 were, additionally, revised such that the related expressions therein are consistent with the expressions referring to the mounting of the semiconductor device on the specified side of the wiring substrate. As to dependent claim 27, the revision made therein is strictly of a minor editorial nature. Additionally, claims 30 and 31 are being newly presented as a substitute therefor of the previously canceled claims 28 and 29.

As a result of a review thereof, a number of informalities were discovered with regard to the original Specification which are presently being corrected. Other changes such as of a minor grammatical nature were also implemented therein. In consideration of the number of revisions being made to the Specification, applicants, through their undersigned representative, are submitting herewith a Substitute Specification (Attachment A) along with a marked-up version thereof (Attachment

B). It is submitted, new matter is not being added with regard to the Substitute Specification, either by addition and/or deletion. Acceptance of the same is respectfully requested.

Concurrently filed herewith is a *Proposal to Amend the Drawings* (including Figs. 12, 23A, 27, 39C, 42E, 45B, 46B, 46C and 47A) in consideration of removing discovered informalities therein. Formal entry of that paper is respectfully requested. Formal implementation regarding the present proposed changes to the drawings will be implemented subsequently to receiving official notification of acceptance of that proposal and in accordance with USPTO procedures directed thereto.

With the submission of the Substitute Specification together with the Proposal to Amend the Drawings, any and all previously rendered concerns insofar as relating to the objection to the drawings, as detailed under item 4, on pages 2-3, of the previously standing Office Action, have been rendered moot. Therefore, reconsideration and withdrawal of any such objections is respectfully requested. Details of the revisions made related thereto are discussed hereinbelow.

The stress compliant layer formation cavities 1022 such as shown in Fig. 35C are now referenced in Fig. 46C as 1022'. Likewise, the stress compliant layer formation bottom tool 1020 in Fig. 35B is referred to as 1020' in Fig. 46B, consistent with that described on page 72 of the Substitute Specification. The present revisions implemented in Figs. 46B and 46C are consistent with that now described in the Substitute Specification. Regarding resin layer 1009 of the description, such as it relates to the second embodiment shown in Fig. 45 of the drawings, a corrective change is being proposed with regard to Fig. 45B to show the low elastic modulus resin layer 1009. Regarding the stress compliant layers 1004a-1004d referred to on page 87, lines 19-25, of the original Specification, such is now

specifically shown in related Fig. 47A of the drawings. Regarding the stress compliant layer formation bottom tool 1020", referred to on page 88 of the original Specification, such as it relates to the illustration in Fig. 48, that description was revised so that it properly refers to the reference numeral 1090 shown in Fig. 48 (see paragraph [0247] in the Substitute Specification).

Regarding additional objections for the reason that a number of referenced characters in the drawings are, allegedly, not mentioned in the original description, such has also been rendered moot in view of the remedial changes in the Specification as will now be discussed. With regard to reference numeral 7 such as shown in Fig. 1 of the drawings, it is now specifically referred to in paragraph [0103], on page 16 of the Substitute Specification. Reference characters 1a - 1e, which are shown with regard to Fig. 6 of the drawings, related discussion thereof is found on page 33, lines 16-21, for example, of the original Specification (see paragraph [0123] of the Substitute Specification). Regarding reference numeral 66, in Fig. 42E of the drawings, this has been accordingly corrected to reference numeral 1066 consistent with the related description thereof. Regarding reference numeral 1007 which refers to the slant portion 1007 such as shown in Fig. 41E and applicable elsewhere, related description thereof is found, for example, on pages 93-94 of the original Specification. Moreover, the expression "slant portion" on page 78 of the original Specification now includes the related reference numeral 1007, consistent with that shown in Fig. 41E (see paragraph [0218] in the Substitute Specification). With the editorial revisions effected in the related description of the Specification concerning Fig. 48 of the drawings, reference numerals 1090 and 1091 are now mentioned in the description.

Other such clarifying/corrective revisions discovered in connection with a review of the original disclosure were also implemented in the

Specification/Drawings, as deemed appropriate. Regarding reference numeral 31, shown, for example, in Fig. 7 of the drawings, such relates to the wire 31 mentioned on page 35, line 6, of the original Specification. Likewise, reference numeral 24 is described as underfill 24 on page 35, lines 19-20, of the original Specification. It is further described in the second paragraph on page 43 of the original Specification such as it relates to the discussion of Fig. 11 of the drawings. Regarding reference numeral 401 such as shown in Fig. 10B of the drawings, this refers to a mask 401 which has a step thickness in connection with the formation of a stress compliant layer 10 so as to form an inner gradual inclination, as described on page 38 of the original Specification. Regarding numeral 23 such as shown in Fig. 21 of the drawings, this, of course, relates to an electrode connection for wiring for effecting an electrical connection between a terminal of the semiconductor device 1 and solder bump 5 of the module. Such is now specifically mentioned (regarding reference numeral 23) in the descriptive portion associated with Fig. 21 of the drawings (see paragraph [0163] on page 48 of the Substitute Specification). Reference numeral 21 such as shown in Fig. 22 of the drawings is now specifically mentioned in the descriptive portion of the Substitute Specification related thereto (see paragraph [0164]). As to reference numeral 25 in Fig. 27, note the correction proposed thereto as well as the insertion of clarifying description directed thereto in paragraph [0117] of the Substitute Specification. In Figs. 27 and 28, reference numerals 25 and 26 represent solder ball contact electrodes, as is now mentioned in the Substitute Specification (see paragraph [0117]). Additional revisions of a minor remedial nature were similarly effected as deemed appropriate. Acceptance of the same is respectfully requested.

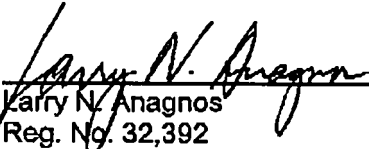
Regarding the newly presented claims, independent claim 30, it is noted, also calls for a stress relax layer in the form of an "insulating resin layer" between the

semiconductor module and the board to which the semiconductor module is mounted. More particularly, the invention defines the "insulating resin layer" as corresponding to one of a plurality of such insulating resin layers that are collectively molded on the board comprising a plurality of wiring substrates. According to a further aspect thereof, each of the insulating resin layers has a thickness greater than the semiconductor device between the wiring substrate and the external connection terminal. Regarding the latter, related discussion thereof is given, for example, on page 74, beginning on line 4, thereof. That is, if a plurality of components are mounted on the wiring substrate, naturally, the thickness of the highest component at mounting is considered to be the minimum thickness as it relates to the stress compliant layer. Therefore, all of the insulating resins layers must necessarily be thicker than that of the semiconductor device. The embodiments such as shown with regard to Fig. 33 and the related discussion of the method directed thereto such as given with regard to Figs. 34-44 represents one example, although not limited thereto, of the invention according to claims 30-31. It is noted that a number of the patentable featured aspects contained in the other claims such as independent claims 1 and 4, etc., which were discussed with regard to the responsive amendment of May 19, 2003, are included also in newly presented claims 30-31. It is submitted, therefore, the invention according to the latter is also considered patentable for the same and similar reasons as that previously argued.

Therefore, entry of this Supplementing Amendment as well as favorable action on all of the presently pending claims in view of the earlier submitted responsive amendment and supportive discussion/rebuttal arguments therein, as supplemented herein, is respectfully requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR §1.136. Please charge any fees due in connection with the filing of this Supplementing Amendment, to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Dep. Acct. No. 01-2135 (500.40506X00), and please credit any excess fees to such deposit account.

Respectfully submitted,
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